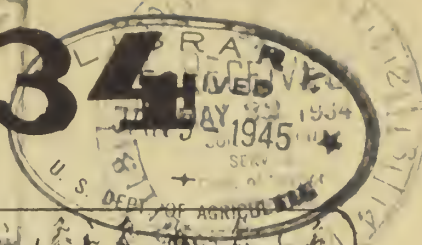


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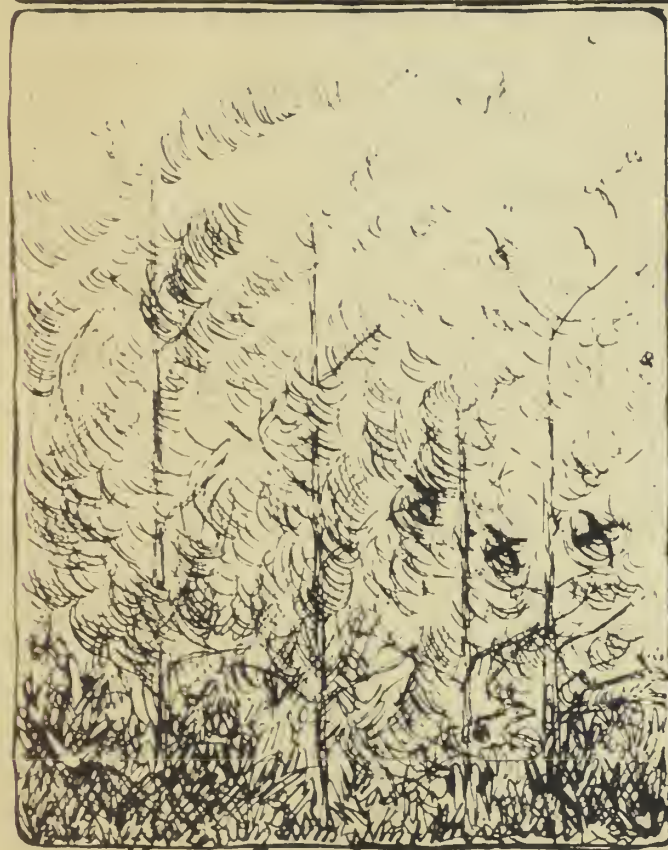
APRIL 1934



U. S. Department of Agriculture



Gods Handiwork



Mans Carelessness



Desolation

THE FOREST PIONEER

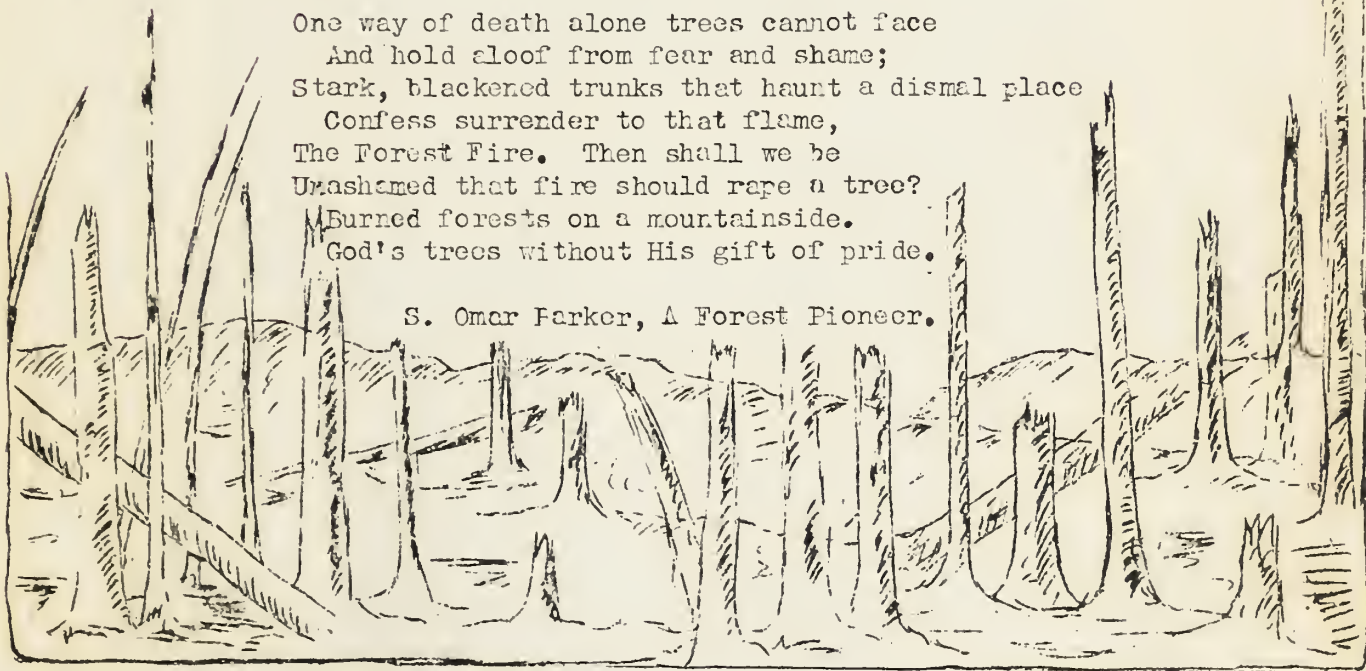
BURNED FORESTS

I think the first gift God gave trees was pride,
That they might face His Heaven unbowed.
How straight the firs are on the mountainside!
How clean the pines! The whitest cloud,
The bluest sky, shame not a tree!
Tree-heads are skyward honestly.

Tree pride is in the fiber of tree wood.
It dies by neither ax nor mill.
In new white lumber, clean and strong and good,
Tree pride is firm and vital still.
Proud are tall masts upon the sea.
And proud home-wood carved from a tree.

One way of death alone trees cannot face
And hold aloof from fear and shame;
Stark, blackened trunks that haunt a dismal place
Confess surrender to that flame,
The Forest Fire. Then shall we be
Unashamed that fire should rape a tree?
Burned forests on a mountainside.
God's trees without His gift of pride.

S. Omar Parker, A Forest Pioneer.





Warden of human carelessness am I;
And from my lonely outpost here on high,
Mountain and vale I scan; I am assigned
To seek forever what I fear to find!

Morning and noon I watch, and e'en by night
My senses must outwit the burning blight,
Which, once allowed to take the upper hand,
Spreads desolation o'er the forest land.

Spindrifts of idle smoke I've learned to fear;
The scent of scorching wood from far or near
Warrants investigation. No delay
Can be permitted when the foe's at bay.

A. DeBernadi, Jr.

FOREST FIRE DANGER UNUSUALLY GREAT

Not since 1904, old timers state, has there been so little moisture as during the winter of 1933-1934. According to reports received from Forest Supervisors in Arizona and New Mexico this situation is quite general throughout both states and lookouts have been manned at least a full month earlier than in any previous year.

Except for the recent rains, which in a few places have been fairly heavy, the situation is still serious as very little moisture has fallen since early in December. Roads in the high mountains which have ordinarily not been usable during the winter have been open throughout. Water in the mountain streams is at a low ebb. Several towns that are dependent for their water supply from forest streams have reported an unusual shortage. All of this indicates that already drouth conditions are existing that would not ordinarily occur until at least two months later.

This means that everyone traveling through the forest from now on must exercise extreme care with their campfires, disposition of lighted matches, cigarettes and pipe heels. Already several sizable fires have occurred. Fortunately these forest fires have, so far, been in localities where little damage was done. This situation, of course, will not continue. Forest officials urge forest users, travelers, Forest Pioneers and others to cooperate with them in preventing forest fires and in promptly reporting any that may accidentally start.

FIRE

Large Fire On The Gila: The first large fire of the season was reported from the Gila, March 20. Apparently, the fire started at night on the south side of Elk Mountain and by morning had burned an area of 3,000 acres. One hundred men were on the fire line and the estimated cost of the fire is \$1,500.00. The cause of the fire was not reported. The burn consisted mostly of grass.

Fire Burns Over Groom Creek Area: The first forest fire of the season burned over a quarter acre on the Prescott-Groom Creek divide above Schoolhouse Canyon, before it was extinguished by Forest Supervisor Frank Grubb, Assistant Llew Putsch, Ranger John C. McNulty and five members of the twig blight crew. It is believed the blaze originated from ashes dropped by a careless smoker among the CWA twig blight eradication workers, though they are instructed not to smoke on the job.

Fire Statistics Review: In the 1933 calendar year the record of mancaused fires on the Coronado Forest was as follows:

Campers 1, smokers 17, debris burning 1, incendiary 2, miscellaneous 1 - Total 22.

The 17 smokers' fires burned over 486 acres and all the other man-caused fires only 151 acres.

So far in 1934, there have been several fires on this forest, the largest of which occurred near Montana Peak west of Nogales, burned about 1,200 acres and was caused by lightning. With drought conditions existing, the situation is extremely serious, not only as to forest and brush fires, but also to the stockmen who are short on both water and forage.

A Good Piece Of Detection Work: On March 22, at about 3:00 P. M. Elden Lookout Pradt reported a fire burning in the vicinity of Walnut Canyon in the Greenlaw slash. Ranger Oldham reports about five acres in mature timber burned. The evidence showed that the fire had been caused by a wood hauler. Car tracks were compared with those on the trailer of Charles Green, who has been a resident of Flagstaff for 51 years, and were found to be the same. Mr. Green was interviewed and taken to the scene of the fire. He admitted that the car tracks were similar to his but denied having been in the vicinity of the fire. It was evident that the fire started near a log where the wood hauler had been cutting. As further proof of evidence, a section of the log was cut off and taken to Charles Green's residence to compare with wood in his possession. Unfortunately, he had split the log into nine sections and thrown them on a pile of wood containing approximately three cords. Rangers Oldham and Hawk found and reconstructed these sections with wire, and found that they exactly matched the section brought in from the fire. The characteristic markings on the ends of the log were bug holes, knots and three sections of rot. Charles Green was taken before Justice of the Peace Decker on March 27, plead guilty and was fined \$10.00. This makes the law enforcement on the Coconino for 1934 - 100%. (Coconino)

Be your own watch dog - guard your forests.

FIRE

Fire Emergency: It has been necessary to place an emergency guard on Nogrito Lookout, effective April 9. This action has been necessary due to the dryness of the country and the fact that there are a large number of sheep lambing in the open grass country on the Elk Mountain District. This makes three emergency guards now employed on the Elk Mountain District.

(From a letter from Supervisor Scott, Gila)

Forest Fire Halts Half Mile From Ice Cave Near Grant: A forest fire came within a half mile of the ice cave near Grant after burning over 400 acres of timber slash and grazing land, the Cibola Forest reports. Picnickers were believed responsible. The blaze started in the afternoon and was not under control until midnight. It was fought by a force of 25 men hastily recruited by Ranger John Mims. The area was on the east end of Oso Ridge, about thirty miles west of Grant. The fire was prevented from reaching the Ice Cave, a natural wonder, because it is in the edge of the malpais or old lava beds which extend for miles in that vicinity.

A New Eye Test For Lookouts: A new eye test for lookouts was developed last summer and appears to give fairly reliable indications as to how far lookouts are likely to see small columns of smoke. In this respect it apparently is a great improvement over the Snellen Test now in wide use. The test consists of a black panel 22 x 30 inches on which is mounted a white dot $\frac{3}{8}$ inch in diameter. The maximum distance at which this white dot can be seen (out-of-doors and facing the sun) indicates the quality of eyesight. Plans are being made to obtain more records so that a very dependable table of distances can be had to indicate quality of eyesight. For the present, however, this can be done with fair accuracy as a result of tests made last year. A feature of the test is that guessing is largely eliminated. (Region 6 News)

Forest Telephones: Construction of a network of 12,000 miles of telephone lines for the protection of state and private forest lands is planned as a part of the President's reforestation program for the Civilian Conservation Corps. Use of the telephone by forest wardens, rangers and other workers is essential to the protection of the forests from fires and other hazards. For many years Forest Service officers have recognized the value of telephone communication, which they state is, at all times a necessity. The Forest Service recently awarded a contract for purchasing 7,216 miles of telephone wire, approximately 400 telephones, 227,000 wooden brackets, 226,000 glass insulators and 70,000 split tree insulators for this big project. Split tree insulators are composed of two interlocking pieces of porcelain which can be put on the line without cutting the wire and are hung on trees instead of being fastened to poles. The forest workers attach the insulator rings at the end of short pieces of wire fastened to trees in a slightly zigzag course so that they are able to string a telephone wire for long distances through the forests without the wire touching a tree. In addition to stationary telephones, the forest workers have portable instruments which can be used for field or emergency work anywhere on the vast network of wires.

Only cigarettes should be toasted - not our forests.

C.C.C. CAMPS IN REGION 3

A Big Job: Moving the CCC Camps is proving almost as tough a job as getting them in. The volume of work necessary and the floods of radio-grams, telegrams, memoranda and personnel problems, is about to swamp the Coronado a second time. (Coronado Bulletin)

Sunnyside Camp News: The Powers Allotment dirt tank was completed this week and work is starting at once on the next one, located on the Lewis Allotment. Three teams, plows and scrapers will be used under Foreman Johnson's direction... The Erosion Control detail is now engaged in stream bottom exclusion fencing on the Lyle Canyon bottoms.

Little Walnut Camp on the Gila: There has been considerable work done here under the supervision of Russell Möberg in eradicating certain diseases affecting the pines in this locality. His constant work and study in this matter has been very satisfactory and wonderful results in the forest have materialized. He expects to be with us again in the near future, to do some more of his good work. The boys are certainly interested in this work.

Revegetation Work: We have one crew of men that do intensive revegetation work on areas where the natural vegetation has been disturbed. Improvement work in and around the Clear Creek Ranger Station is being done by a crew from this camp. The improvement work consists of building a new fence around the ranger station proper and assisting in construction of an addition to the Ranger Station (Clear Creek C.C.C. Camp)

Ranger Station Nearly Completed: The Lowell Ranger Station is now about 60% complete, taking the average percentage of all the different types of jobs connected with the construction thereof. Cattle guards are in, fence finished, the telephone line is 95% finished, water and sewerage system is about 60% finished and the dwelling, garage, barn and toolhouse, of adobe bricks, are about 40% complete. Mr. Day expects to have everything finished at the Lowell with the possible exception of the interior, by May 15th.

(Tanque Verde C.C.C. Camp News)

Work Completed By Tripp Canyon Veterans' Camp: Widening of the Tripp Canyon Truck Trail from a mere mountain trail to a well built road of 16 feet in width, six miles long; Aravaipa cutoff, five miles long, connecting with the Fort Grant Road; Safford-Aravaipa telephone line, 45 miles, with a main line connection to camp 7 miles in length, completing a very important link in the fire protection system. Clifton-Metcalf telephone line, 8 miles; West Peak telephone line, 5 miles. At the present time the road crews are working on the West Peak Truck Trail 5 miles in length with 1½ miles completed. This route will have wonderful scenic advantages along with fire protection values. North Taylor Pass Truck Trail, also under construction and relocation will be 7 miles in length with 2 miles completed. Tripp Canyon Wood Road, 3 miles long with 1 mile completed. The Timber Stand Improvement crews started the 29th of November 1935 and to date have covered 240 acres. Undoubtedly, some of these Veterans must be ex-loggers. The forest is composed of a mixed stand of oak, juniper, pinyon pines and at present a large portion of the timber cut is being utilized for fuel. The Erosion Crews began work in December and at the present time 700 dams have been built covering an area of 300 acres...

Tripp Canyon Camp News.

Preserve your forests as a Scotchman does his money.

C.C.C. CAMPS IN REGION 3

Planting On The Deltas: D. W. Smith, who has supervised the erosion control project at the Little Walnut Camp, Gila, reports that 27,892 cuttings and rooted plants have been planted in formed deltas. Prepared and planted in transplant beds, are 14,640 cuttings, willows and cottonwoods. Twig blight has been eradicated on 5,000 pines over an area of 240 acres.

Fence Crew: The fence crew has completed twelve miles of fence and have four more miles to go. At this rate we will be finished with the fencing program ahead of schedule time. The crew which has been reconditioning the Dry Creek Ranger Station is nearly finished with this work. They have repaired and painted all the buildings and built a fence around the station.
(Glenwood C.C.C. Camp)

Pre-Season Opening Of Jornada Recreational Area: The annual picnic and outing of the Junior and Senior Classes of the New Mexico State College, attended by some 100 students and faculty members, was held at the new recreational area at Ropes Springs on the Jornada Experimental Range, April 20. Public approval and acceptance of this project was indicated by expressions of appreciation by both faculty members and student body who seemed to thoroughly enjoy themselves in spite of the fact that they were unable to use all of the improvements which were under construction. This development by the CCC bids fair to gain some very favorable publicity for the Service in these parts. (News from the Jornada C.C.C. Camp)

A Rang-Up Campground: The largest detail that we have in this camp is assigned to the improving of a camp ground in Oak Creek Canyon. At the present time thirty one men are doing carpenter work, stone work, cleaning the grounds, building trails and roads, and a dozen other smaller jobs, to make this camp ground one of the best in this part of the country. The location is practically ideal. Oak Creek Canyon is one of the prettiest spots in the state. Even on the warmest days of summer a cool breeze is usually blowing in the canyon. The nights are cool and restful. The elevation is sufficient to insure a cool summer campground and yet low enough that it may be used a great deal later in the fall than some of the campgrounds located higher up on the mountains. The grounds are beautifully shaded by deciduous trees as well as several varieties of evergreens. Oak Creek is well stocked with fish and is probably the most popular trout stream in Arizona.
(Sedona Camp News)

A Lot Of Dams: Eleven thousand erosion control check dams have been completed by this camp, to March 31 states the Tonto Creek Camp News. This represents, according to the graphs in the Camp Superintendent's office, 85% of the work planned during the occupancy of this camp for the present enrollment period. Some of the work contemplated is: The construction of dry-mix cement dams and the grouting of weak points of some of the larger loose masonry and sausage dams.

Several of the local land owners who have come to scoff at the check dams have remained to say: Don't you think it would be a good idea for me to build some dams like these down on my farm to keep some of my land from washing away and some more of my land from being covered with worthless sand?

Foremen whose crews are doing erosion control work are reported to be bragging about the sizes of their respective dams. First, it is said, they compared their dams in cubic feet content, ^{but} that now they speak in terms of cubic yards of rock and acres of delta.

GENERAL C. C. C. NEWS

Forest Service To Supervise Large Number Of C.C.C.: The Forest Service will have supervision of the work of 200,000 of the 300,000 employees of the Civilian Conservation Corps who will enroll April 1, according to Robert Fechner, Director of Emergency Conservation Work. The men and boys will be employed on national, state, and private forest lands and soil erosion projects.

State C.C.C. Camps: All told, there will be 272 C.C.C. Camps located in the state parks of 40 states during this summer, an increase of 34 over the present total. The State Park Camps represent about 20% of the total number of camps (1,468) to be operated. Arizona will have six state camps, three continued and three new ones, two in Hualpai Mountain Park near Kingman and one at Colossal Caves near Tucson. New Mexico will have three, two continued and one new. The continued camps are the Santa Fe, and Bottomless Lake Park near Roswell. The new camp is the Eastern New Mexico Park at Roosevelt.

Former CCC Men To Organize: Former enrollees of the Civilian Conservation Corps, foresters, Army and Navy officers, and enlisted men who have been on duty with that organization will be welded into a new organization if plans of the "Happy Days" newspaper materialize, according to a War Department letter. We quote the letter: "With the consent of Mr. Robert Fechner, Director of Emergency Conservation Work, Happy Days is organizing a C.C.C. Reserve Corps, to be known as the Conservation Corps Reserve (CCR). Its purpose is to preserve to the men the memories and incidents of their association in the C.C.C. and to support the general conservation work. Membership in the CCR will be limited to honorably discharged enrollees in the C.C.C., officers, enlisted men, foresters, and others who have been connected with the C.C.C.... No membership fee will be charged until such time as a permanent organization is formed. Membership cards will be furnished by Happy Days." Discharged members who are eligible are asked to write to Happy Days if they desire to join.

First Year Of CCC Work: Advancement of conservation work by ten to twenty years is credited to the first year's operation of the Civilian Conservation Corps by government officials. Letters to President Roosevelt from Robert C. Fechner, director of emergency conservation work, Secretaries Dorn, Wallace, Ickes, and Perkins, and Brig. Gen. Frank T. Hines, administrator of veterans' affairs, whose departments were all concerned with the work of the corps, described its accomplishments. These include: Jobs for 600,000 men and restoration of their morale; nearly \$60,000,000 sent home by members of the corps and disbursement of \$255,000,000, two-thirds of which went into general circulation; reduction of forest fire losses to 17 percent of the average for the previous five years. Mr. Fechner said that the CCC now operate 1,468 camps in the United States with an authorized strength of 303,625 men, no State having fewer than two camps. Camps in Puerto Rico, Hawaii and Alaska and a contingent of Indian camps bring the total authorized enrollment up to 320,377, this figure including 250,000 unmarried men between the ages of 18 and 25, 28,225 war veterans and 25,400 experienced woodsmen. In addition to this enrollment of unemployed, 14,000 foresters and technical workers have been used as supervisors and 3,600 reserve officers have been assigned to the camps by the War Department, Mr. Fechner said. (N.Y. Times)

WHO PLANTS A TREE

Give fools their gold, and knaves their power;
Let fortune's bubbles rise and fall;
Who sows a field, or trains a flower
Or plants a tree is more than all.

John Greenleaf Whittier.

Farmers' Meat Barrel Takes New Form: The mayor of Hot Springs, New Mexico, urges the planting of pecan trees along irrigation ditches and in similar favorable situations. The market for pecan nuts has grown, not only in their use as refreshments, in cakes, rolls, candy, and oil, but also in place of meat by those on a special diet.

Tree Planting Sets New Record For Pennsylvania: Tree planting on state-owned lands reached a new high mark last year according to reports to the State Department of Forests and Waters. The forestry department itself set out the largest number of young trees when it planted 1,295,000 seedlings and transplants in state forests. Other state departments increased the total by 254,000 trees planted on hospital, sanitarium, penitentiary and school sites.

Pioneers Planted Many Trees: Pioneer farmers who settled the prairies of the Middle West were great tree planters. Most of them came from districts in the East where they had been clearing lands for agriculture, but in the new environment of the plains they quickly saw the need of planting trees for shelter against winter cold and summer heat. The plantings also supplied fuel wood, poles, posts, and rough timbers. It is estimated that farmers planted about 240,000 acres of lesser acreages in other central States where there were more native forests.

Money In Christmas Trees: A rotation of Christmas-tree crops has been successfully established on several Connecticut farms, according to state extension foresters' reports to the U. S. Forest Service. Spruce trees planted a few years ago were thinned and sent to local markets for the holiday season. The stands are replanted from year to year, keeping up an annual crop of several hundred trees, bringing in a cash income. Farm owners have demonstrated that beautiful spruce Christmas trees can be grown on abandoned farm land now producing no returns. Farm-produced Christmas trees grown at low cost and sold to nearby markets can be delivered fresh without bundling and heavy transportation charges.

Shade Trees Should Grow Natural: Many good shade trees have been spoiled by inexpert tree doctors. Shade trees seldom, if ever, need pruning. Trees as elms, hard maples and oaks will live for generations if allowed to grow their normal, natural way. There is no reason for cutting out a tree top, no matter how tall the tree grows. There are times, however, when it is necessary to cut interfering branches, or branches that are too close to the house. These should be sawed off flush with the main branch, or trunk of the tree, and the cut made from the bottom first, to prevent the bark from slipping when the branch falls. The wound will quickly heal and not decay, if it is painted. The writer claims to have but few prejudices. One of them is against tampering with shade trees, except by an operator known to be qualified.

Clipped.

FOREST MANAGEMENT

Lumber And Water: The weight of a thousand board feet of lumber decreases approximately 22 pounds for every per cent of moisture removed from the wood by seasoning.

Arizona Lumbering Fifty Years Ago: 50 Years Ago Column from the American Lumberman: "But little, until recently, was known about the timber of Arizona. A few straggling mills have been located in the territory, most of them necessarily hauled a long distance by mules, as there was not a mile of railroad seven years ago."

A. L. & T. Co. Mill Has A Close Call: About five o'clock March 11 a fire started at the Arizona Lumber & Timber Company tramway near the southeast corner of the mill. A high wind was blowing which made it appear that the mill was doomed but with the quick action of the sprinkler system installed in the mill, and local firemen, the fire was extinguished without any great damage to the mill. (Coconino News)

Cady Sale Completed: The Cady Sale, the largest sale in the history of the Forest Service, is being rapidly wound up, a small amount of calipering work - mostly compilation of data - yet to be accomplished. It has been a pleasure to work with this company during the years covered by this sale. Our Chief Lumberman, Kimberlin Carlisle, and his entire force has been complimented most highly by this company for the manner in which they handled the forest end of the work, and they indeed deserve the commendation of all of us.

(Sitgreaves Bulletin)

Timber Cut In Region 3: Timber cut from the national forests in Region 3 during the calendar 1933, under commercial sales and exchange amounted to 90,194 M feet. This included all classes of forest products reduced to M feet. This was an increase over 1932, when the cut was 67,920 M feet. The average value of the timber cut was \$2.38 per M. Sales made during the year from the forests amounted to 13,705 M feet with an average value of \$2.22 per thousand. This was very much lower than in 1932 when 123,782 M feet was sold. The Forest Service administered under cooperative agreement for the State of New Mexico sales from which were cut 494 M feet, and for private owners 256 M feet.

Nira Stand Improvement Project Under Way: On October 1, 1933 a NIRA timber stand improvement crew was started on the Coconino Forest with Junior Forester Walter G. Thomson in charge. He started with a crew of 25 men and gradually increased the number until he reached the maximum of 87 men. When the number of men reached 75, he worked them in three five hour shifts, and the time of the shifts overlapped so that he could do all of the supervision and be on the job all the time the men were at work which necessitated his working ten hours per day. Only one stake truck was used for the transportation of the men. The sum of \$19,422.89 was allotted and expended on this work, and 3,112 acres were treated at a cost of \$6.24 per acre. 92.8% of the total amount expended was for wages.

A cigarette butt can make hell out of paradise.

WOOD

Osage Orange:- is the only native wood that furnishes a dye in commercial quantities. In color it ranges from yellow to golden brown and is used in dyeing leather as well as textiles.

Strength Of Wood: Dry wood is as much as two and one-half times as strong as the same wood in the green, or natural growing state. The strength of the dry wood compared to green wood varies with the type of trees, the amount of moisture it contains, and similar factors. The Forest Service has studied the problem of moisture and strength in wood for the last 25 years and has worked out formulas for finding the strength of wood under different moisture conditions.

Plywood In Woodworking: Plywood has been an important factor in reducing labor costs and extending the use of wood products in the woodworking industry. The use of plywood by detail planing mills has proved one of the most fruitful fields for exploitation. Plywood has supplanted sawn lumber for a great many uses, providing a better and more easily worked material, besides effecting a material saving in labor costs. Plywood does not check. It withstands the variations of climatic conditions without shrinking and leaving unseemly cracks...

Wood Used As Reminder Of Enduring Friendliness: Milton Roy Hartmann, Secretary of the Rotary Club at Thun, Switzerland, touring America under the auspices of Rotary International, and speaking to Rotary groups at 36 points, presents to the president of each club represented at those meetings a little bear carved out of wood by Swiss boys. The point is that a representative of a country long fortunate in escaping war and whose government has a record for economy selects wood as the material to convey, lastingly, his message of love and good-will to the people of a sister republic.

Artificial Flowers From Wood: A floral studio in Los Angeles is reported to have engaged in the business of manufacturing artificial flowers from bamboo imported from Japan. The wood is shaved into very thin sheets after which the Japanese treat the bamboo so that the sheets are fine and soft as cloth. They are then easy to manipulate and take a permanent dye readily. So expert have the craftsmen in this new industry become that the flowers are practically lifelike. It is almost impossible for the average person to distinguish them from freshly cut orchids, roses and poppies.

Wood Vs. Iron: In considering the construction for building a large cotton storage warehouse and compress, 100' x 1800' at Mobile, Alabama, the use of aluminum paint-primed siding was determined upon in preference to corrugated iron. The decision was made only after exhaustive tests and investigations. It was found that aluminum primed yellow pine siding is highly fire resistant and after demonstrations were made was given the same rating by insurance companies as brick or corrugated iron. During these investigations it was also found that cotton stored within corrugated iron walls lost from five to ten pounds per bale in weight, because of the intense heat generated by this material. Thus a considerable loss was caused in the aggregate poundage and value of the contents of the warehouse. (Texas Forest News).

RANGE MANAGEMENT NEWS

Over Five Miles Of Fence Built: Under the Nira program 5½ miles of grazing allotment fence has been completed under two contracts. A third contractor has completed 4 miles on another grazing allotment fence. One stock tank 200 by 80 ft. was completed during March and contracts for two more are signed up. (Sitgreaves Bulletin)

One Step Forward: The house yesterday passed the Taylor public lands bill, which in our opinion is a long step toward salvation of the cattle and sheep business in New Mexico. It means perpetuation of ranges, protection of watersheds, and conservation of natural values. Ultimately, it will result in untold economic benefit to succeeding generations in New Mexico.

(Editorial in Albuquerque Tribune - Apr. 12)

Cooperative Work: Two more stock associations voted to have their salt assessment collected by the Forest Service. This places, approximately, over 500 permittees under this rule and a total of 14 stock associations having their salt fees placed in a cooperative fund. Over \$600 was collected during 1933 with still quite a number of delinquent fees to be paid. (Carson)

Range Revegetation: Artificial revegetation of the mesquite sand dune type is one of the problems being attacked at the Jornada Experimental Range. The type occurs on large areas in southern New Mexico and western Texas, and the purpose of the work is to develop a practical method of increasing the grazing capacity of the type, which in its present condition will hardly support 2 or 3 cows yearlong per section. Black grama, which thrives on the more compact sandy soils on the Jornada, is being transplanted to chain square experimental plots inside a fenced section in the sandhills. The method followed is to dig average tufts with care not to disturb the soil around the roots, to place the plants in paper bags for protection during transportation, and to transplant without removing the sacks. Planting intervals of 2, 4, and 8 feet are being tested. Other work will include sod transplanting of other likely species and reseeding with available species that appear suited to survive on sandy soils. A cost account record is kept.

Snowstorm In Northern Arizona Insures Good Grazing: The Coconino reports that the snow storm which swept over the higher portions of the Mogollon Plateau April 3 was a "God send." The whole plateau lay under a blanket of snow from six to fourteen inches deep. Light snow fell over the plateau on the 4th but by six o'clock that night the sky was clearing. The snow melted rapidly during the day and unsurfaced highways were muddy but passable. A. E. Wall, said the plateau would be green with new grass in ten days and that cattle and sheep would find ready forage. Snow fell from the Cameron trading post on the edge of the Painted Desert, 65 miles north of Flagstaff to Pine below the Mogollon Rim to the south. In most places the snowfall was heavier than in Flagstaff. Winona reported 12 inches, Munds Park 10, while the Clear Creek Ranger Station reported only a trace. Snow also fell in Winslow and Prescott. The moisture will do much to replenish the diminishing water supply of Flagstaff. The city has been on short water rations since March when the city council passed an ordinance forbidding the use of water for washing automobiles and watering lawns.

GAME

Deer And Antelope On The Jornada Range Reserve: Director Campbell estimates that there are, approximately, 700 deer and 150 antelope on the Reserve. The total acreage of the Reserve is 192,000 acres.

Beaver For Chiricahuas: Bids are being gotten out by the Coronado Forest for trapping twelve beavers and transplanting them in some of the streams on the Chiricahuas. This is in the Fish Stream Improvement program under Nira, soon to be undertaken.

Plant Three Million Trout In Year: By the end of the current fiscal year the state game department will have planted about 3,000,000 fish in the various streams and lakes of the state, State Game Warden Elliott Barker reports. Due to the warm winter, planting has been going on almost continuously. The state has about 400,000 native trout in the Parkview hatchery ready for planting. They range from three to five inches long.

Large Jaguar Caught: Ranger Wingo of the Coronado reports that on March 31 the government hunter, Frank Colcord, in the Tumacacori Region succeeded in trapping a large male jaguar near the head of Pena Blanca Canyon. Colcord took the animal about fifteen miles west of Nogales on the Mexican border after a nine hour ride. This is the largest of the American cat family and sometimes weighs as much as 300 pounds. In coloring he is the most gorgeous of the American cats.

Three Wildcats Get Deer For Needy: Three wildcats went without their dinner recently, but Prescott's needy feasted on venison. The cats, stalking the forest in the Walnut Creek country, surprised a general land office survey party at lunch by pouncing upon a yearling deer within sight of the camp. The surveyors lost no time. Before the cats had tasted their meal the men rescued the prize and turned over a dressed animal to Ranger Jess T. Fears who in turn turned over a week's supply of venison to the Salvation Army.

A Bear Refuge: At a meeting of the Flagstaff Game Protective Association, Forest Supervisor E. G. Miller of the Coconino, recommended to the association the establishment of a bear refuge to be located at the head of Fossil Creek, 60 miles south of Flagstaff, the refuge to be for a five year period. The proposed refuge is in rough country where very few livestock graze. It is estimated that not over one bear in ten becomes a stock killer. If the bear refuge is established by the Arizona State Game Commission it would be the first in the state and also in the southwest.

Hope To Capture Bighorn Herd For This Area Shortly: State game department hunters have not yet trapped any Mexican bighorn sheep for transplanting to the Sandia Mountains, but hope to before long, State Warden Elliott Barker said recently. The sheep are frequenting the area where a trap has been constructed in the Big Hatchet Mountains of Hidalgo County and some are likely to be caught before many weeks, Mr. Barker believes. The sheep probably will be released on the northwestern slope of the Sandias above the site of the Juan Tabo CCC Camp, he said. This is in the area where a new winter playground is being developed by the CCC.

NEWS FROM WASHINGTON

Examinations To Be Held: It is proposed to give examinations for the position of Junior Forester and Junior Range Examiner some time during the last two weeks of May 1934. The final date for applications to be received in Washington is May 4.

New Region Established: A wire from the Forester states that the Secretary of Agriculture has approved the establishment of the new Region 8 in the south with headquarters at Atlanta, Georgia. The Alaska Region, now Number 8, will become Number 10. J. C. Kircher will be transferred to Atlanta as Regional Forester and Robie M. Evans now Assistant Regional Forester in charge of Forest Management will become the new Regional Forester in charge of Region 7.

Holly With Cherry Trees: Japan's pink cherry blossoms around the Tidal Basin will bloom this spring against the green background of American holly. To improve one of Washington's most famous sights, the Public Works Administration has allotted \$10,000 for a plan drawn by landscape architects of the National Parks Office. Officials said plans call for planting of the holly in groups of three or four trees around a center plant. As they will not grow to a great height, they will still allow the basin vista between the cherry trees, architects said, and in their own berry season will strike a cheery note in winter.

Timber Conservation At The White House: "A storm one fall, in the Wilson time, blew down a large elm in front of the White House. The President, looking out a window, saw a force of men chopping it up and hauling it away. He asked what was done with the wood and when told it was thrown on the dump, he exclaimed, 'What a waste!' He then ordered it sawed into proper lengths and split to be used in the White House through the winter. Until then, every stick of wood had been bought. Since then all of it has been supplied by the Public Buildings and Ground Office from the parks, mostly Rock Creek. Wilson went on to explain the tremendous waste practiced by the American people in such respects as contrasted with other parts of the world, where every twig and even the leaves are gathered for fuel, and how we must learn to conserve our natural resources." Saturday Evening Post

Eastern Forests Gain In Area: Since President Roosevelt allocated \$20,000,-000 of Emergency Conservation Work funds for the purchase of forest lands as a relief and conservation measure last July 21, the Federal Government has acquired or is now acquiring through purchase more than 3,000,000 acres for National Forests east of the Great Plains. These purchases bring the total area in Government ownership within the National Forests in the Lake States and the Eastern and Southern States regions to 10,273,269 acres. Of this area, 7,796,129 acres has been purchased with the approval of the National Forest Reservation Commission, under the Weeks and Clarke-McNary forest laws. The rest was acquired by exchanges and through withdrawals of lands from the public domain. The area of land under National Forest administration in the Lake States, January 15 was 3,010,344 acres. In the Eastern and Southern States the area was 6,885,623 acres. On February 21, the commission approved the purchase of 377,302 additional acres in these regions, to be placed immediately under Forest Service management.

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You may like to smoke - but forests don't.

Mr. French Reviews His Ten Years In The Legal Field In Region 3

With the run on the First National Bank, I arrived in Albuquerque February 4, 1924.

At that time the Casa Colorado case which involved a boundary dispute between the Manzano (now the Cibola) Forest and the Grant had shortly before been filed. The case was finally decided in favor of the Government by the Supreme Court of New Mexico January 15, 1934, and hence occupied the attention of the courts for a period of over ten years. Other cases of more than routine interest during the decade are: Fitzgerald mining locator, v. Lee Moor, Contractor of the Prescott White Spar forest highway, which was defended by the Government and in which Fitzgerald claimed that his mining property was wrongfully used for right-of-way purposes in building the highway, was decided by the Superior Court at Prescott in favor of the Government. The Saginaw-Manistee case on the Tusayan in which the United States Court in Arizona recognized liability of the lumber company for negligence of its employees with fire in operating its logging railroad. The fire trespass and property theft case of T. H. Shoemaker, which resulted in the killing of Shoemaker by a deputy sheriff, only, however, after Shoemaker had killed Bob White, Lincoln Forest Clerk and former Forest Ranger. The Fears case on the Apache in which Ranger Jess Fears was arrested for killing Conner Trammel's horse under Regulation T-12, which resulted in the acquittal of Ranger Fears by the Supreme Court of Arizona, and the sustaining of Regulation T-12 by the United States Court. The case of United States v. McCauley, County Attorney, on the Sitgreaves, in which the United States Court of the District of Arizona sustained the Secretary's closing order authorizing the shooting of wild horses not removed from the forest ranges. The case of United States v. Arizona Imperial Mines and Max R. V. Baumkirchner on the Coronado in which the defendants had, by extensive fencing connected with natural barriers, enclosed approximately 3,000 acres of forest land under the guise of protecting their numerous alleged mining claims. The United States Court ordered the fencing (except as to 160 acres conceded by the Forest Service) removed by the defendants. The René and Baker cases on the Prescott involving the use of valuable recreational ground under the guise of the mining law, both of which were decided in favor of the Forest Service by the Secretary of the Interior. The Strunquist case on the Cibola involving a building stone claim with a frontage of three-fourths of a mile along a recreational highway, which was successfully contested by the Forest Service. The Powder case on the Tusayan, which was a trespass of several years' standing in which the defendant claimed that while he did not have a grazing permit he was in equity entitled to one, was terminated in the United States Court favorably to the Government and \$772.27 damages and costs collected. The grazing trespass cases of Fred H. Bixby and the Tremaine Alfalfa Ranch & Milling Company on the Tonto in which in addition to actual damages aggregating \$2,496.22, the Forest Officers' time and expenses in amount of \$819.97 were collected. The Springerville road controversy, which had its ups and downs in the Arizona courts for several years and finally resulted in the securing of the necessary rights-of-way. The Threlkeld case on the Lincoln in which the Forest Service is seeking to condemn a right-of-way over a patented homestead for a logging railroad to get out Government timber and for a forest development road in which Judge Neblett of the U.S. District Court held that the Government is not authorized so to condemn and which case is pending on appeal in the Circuit Court of Appeals at Denver.

SOME EARLY TONTO HISTORY

Roads: One thing that was of assistance to new settlers coming into the Tonto Basin country, was the roads that were built by the army under the regime of General Stoneman. It was he who first built the road from Camp McDowell on the Verde River to Fort Reno in Tonto Basin, and from Fort Reno up through the Basin and connected with the military road he built from Camp Verde to Fort Apache. Both of these roads were used by the incoming early settlers. Stoneman Lake on the Coconino is named after General Stoneman...

The first flood to come down Tonto Creek was in 1891 after it had rained steadily for 12 days and nights. At this time the country was fully stocked, the ground had been trampled hard, much of the grass was short, or gone, gullies had started and the water came rushing down. This flood took a good deal of the agricultural land from the ranches along the creek and was so high that it filled the gorge where it entered Salt River at the present site of the Roosevelt Dam.

Horses: The Tonto Basin was never much of a horse country. The stockmen and settlers usually raised their own horses, but not in large numbers. The country taken as a whole is too rough and not the type adapted to the successful raising of horses. Lions have always been a handicap to the industry, getting many of the colts as well as aged animals. Mr. Art Sanders, who lives in Globe, told me that he and his brother John bought 1089 head on Wild Rye Creek and the vicinity of Payson in 1905, paying \$3.00 to \$5.00 per head for them. These were an accumulation of the range horses owned by everybody. They were sold to Senator Mayfield and Nail and shipped to South Carolina and Alabama.

First Sheep and Goats: The first sheep were brought into Tonto Basin by Fred Powers in 1876 and were held on Tonto Creek. These were brought from California to Mojave County in 1875 and on to Tonto in 1876. Davy Gowan was the herder of this band. Powers ran sheep until the varmints got so bad he had to go out of the business.

Jack Holder is the first man who brought goats to Tonto Basin in any quantity, bringing about 3,000 head in from New Mexico about 1896. He brought several thousand more in later. He ranged his goats principally on the East Verde, but also had some of them at Gisela for a time. The Neals and Booths had goats at Gisela and Ira Hickcox had a bunch on Wild Rye Creek at his ranch just above the present Boss Chilson Ranch.

First Cattle: According to F. Packard, the first cattle to be brought to Tonto Creek were by John Meadows, in 1876. There were 50 head of these, mixed Red Durham cows, and they were brought from California. Christopher Cline and his five sons drove a herd in the same year and settled on lower Tonto. There were four hundred head in this herd, so far as I can learn. These were also driven from California, coming from the vicinity of San Diego. Christopher Cline was the grandfather of all the Cline boys now grazing permittees on the Tonto....Mr. Craig says, salting was a great handicap and many did not do it, losing many cattle as a result. He says while at the Zulu mine on Wild Rye Creek, in the early days, he has ridden the length of it and not been out of the odor of dead cattle and they were dying in grass knee high for the want of salt.

By: Former Forest Ranger Fred W. Croxen of the Tonto- see p.16

The Most Costly Substance Is Radium: ..Dr. Hopkins tells us that radium is the most costly substance known to commerce selling for a price corresponding to more than 2,000,000 dollars per troy ounce or more than a 100,000 times its weight in gold...(Science)

Cashew Not A Nut: Comparatively unknown a few years ago the cashew nut now rivals the walnut and pecan in popularity and may be bought in almost any drug or grocery store. Last year this country consumed more than 5,000,000 pounds of cashews. The cashew "nut" is not really a nut, but the seed of a fleshy fruit borne in clusters on a large evergreen tropical tree. Curiously, the seed is attached to the outside at the lower end of the fruit. The cashew tree thrives in Porto Rico and other West Indian islands, and a few trees have fruited in Florida.

The Gila Monster: No this sluggard of the desert cannot outrun a horse; nor can he swallow a man whole as early stories of adventure in this country would sometimes lead one to believe. In fact the ordinary walking gait of a man would be considered amazing speed for this fellow except for quite short spaces which he can cover somewhat more quickly. Too, he is really not a monster in size for he seldom attains more than two feet in length. If we judge this famous reptile with impartiality to his kind one must admit he is really beautiful. The hide with its mottled color scheme of black and orange-yellow compares very well with the variegated patterns on oriental tapestries while the innumerable little bony tubercles give his glistening hide a beautiful Indian beadwork effect. The home of the Gila Monster of the American Southwest is in the Gila River country of southern Arizona while in the state of Sonora, Mexico is found a closely allied species *Heloderma horridum*...It is generally agreed by scientists who have investigated the matter that the Gila Monster is venomous and that this and a closely related species found in Mexico are the only venomous lizards. Competent scientists have made careful investigations of the quality of the venom and have found it very toxic. The reason there has been so much dispute with reference to the Gila Monster bite is because the means for injecting the venom are so less positive in action than those possessed by venomous snakes, as for instance the rattler. The rattlers' fangs are, of course, almost perfect hypodermic syringes and consequently when a rattler bites, venom in a considerable quantity usually gets into the wound. On the other hand, the Gila Monster's venom glands are in the lower jaw. The teeth are not hollow and consequently for any considerable quantity of venom to get into a wound the Gila Monster must hold and chew, and even then injection of venom is largely a matter of chance. Under such circumstances you can well see why it is that many people have been bitten by Gila Monsters with no ill effects at all, and as a result it is often said that the Gila Monster is not venomous. The best recent paper on the subject is entitled "*Heloderma Poisoning In Man*" by T. I. Storer, Bulletin Antivenin Institute of America, Vol 5, No. 1, June 1931. In this paper Dr. Storer gives full information on a man who was fatally bitten by a Gila monster in Los Angeles in 1915. However, he reaches the conclusion that it is not definitely proven that the fatality resulted from the bite. It may have been brought on by the physical condition of the victim and the nature of the medical treatment administered.

PIONEERS' PERSONNEL PAGE

L. C. Whitehead- of the Biological Survey at San Antonio, Texas, requests that eight copies of the Forest Pioneer be sent to him which will be mailed to their field assistants throughout that territory so that they may keep informed of Forest Service accomplishments.

Vance Thomas Dead: After more than a year of ill health Vance A. Thomas succumbed, on February 19th, from a series of complications. Vance, a World War veteran, who saw overseas service with the Marine Corps, entered the Forest Service in September 1924 and served as an assistant, Forest Ranger and Senior Forest Ranger. He had been on leave without pay since December 1, 1932.

Word From Ray E. King: "As I have been transferred to Galveston, Texas, I am taking this opportunity to inform you of my new address hoping very much to be retained on the mailing list of the Forest Pioneer. It gives me much pleasure to refer to my Forest Service relations. The Pioneer refreshes the memory of much pleasant work and many of the personnel. Please extend my regards to all. Any mail sent to me may be sent in care of Immigration Building. Sincerely yours, Ray E. King." (Such kind and appreciative words are received with great joy by the staff. Editor)

Fred W. Croxen: Fred, who was a Senior Forest Ranger on the Tonto when he retired, and who served 18 years on that forest, writes us just a line to say he will be very glad to receive his next copy of the Forest Pioneer at his new address, P. O. Box 644, Warren, Arizona, and that he enjoyed reading the January number very much. He also sent in the name of another pioneer, Albert A. Gatlin, also living in Warren, who was a ranger on the old Garcia (now the Coronado) Forest. Mr. Gatlin is at present connected with the Immigration Border Patrol- a Service to which quite a number of our former Forest Service men have transferred to. Don't miss the extracts we have published from Fred's very interesting article "Some Early Tonto History" on page 14 of this issue of the Pioneer. These and the rest of the article were also used in our Daily Bulletin.

Dr. Lowdermilk Joins Interior Department: Dr. W. C. Lowdermilk who has been in charge of erosion-streamflow investigations at the Experiment Station for nearly five years left on October 8 for Washington to become Assistant Director of the nation-wide erosion-control project set up with a five-million dollar N.R.A. budget in the Department of the Interior. Mr. Lowdermilk has initiated work and obtained results in this region which have achieved national recognition as among the most important in putting the knowledge of erosion control upon a sound fundamental basis. Lowdermilk was formerly in the Southwestern Region. He was a United States Rhodes scholar at Oxford and before coming to the station had spent several years studying the disastrous erosion and flood problems in China. It was there that he conceived the methods which he has applied so successfully in his California studies. The new assignment is a recognition equally gratifying to himself and this Region. He retains a consulting capacity with the Experiment Station in erosion work, and we hope to have him back in our own station on the termination of his loan to N.R.A. work. (California Ranger)

Watch your campfire - even in the petrified forest.

PIONEERS' PERSONNEL PAGE

Wilbur O'Byrne- former Forest Examiner on the Coconino and now farm forestry specialist with the Virginia State Extension Service at Blacksburg, writes: "I always enjoy the Forest Pioneer very much and always devour it from cover to cover. While there are a good many changes in personnel I get quite a kick out of reading of the old familiar stamping grounds and find an occasional name that is familiar..."

David L. MacBeath: David Livingstone MacBeath, Highway Engineer, died on January 26 at San Rafael, California, following an abdominal operation on January 19. He became seriously ill on January 17 making an inspection of Bureau of Public Roads survey work near Pala, San Diego County, California, but preceeded home before undergoing the operation. MacBeath served in Region Three as Assistant Forest Ranger and left to join the Bureau of Public Roads January 1, 1917, where he served continuously except for time spent in the army during the World War.

Redington Returns To Forest Service: Paul G. Redington, Chief of the Bureau of the Biological Survey for the past seven years and for 23 years with the Forest Service, returned to the Forest Service on March 1 to fill an important administrative position in the office of Public Relations, Washington, D. C. Secretary Wallace in announcing the transfer expressed his appreciation of Mr. Redington's services with the Biological Survey in a troublesome period of the Bureau's history. We are sure former members of the Southwestern Region will be more than pleased to welcome Mr. Redington back into the Service.

Ye Gods! Another One!: Those folks that have an Orlando or Ephesus or Jedupiah for a middle name don't know how lucky they are. A while ago we reached Tucson in time to learn how Rex King had cleaned up on a couple of cops. Another time we heard how Rex King had made a spectacular run across the border with an illegal cargo. Then we read in a paper how Rex King was scheduled for a 10-round go as the main event of the evening, and another time that he had been pinched for traffic violations, and not so long ago Paul Henley Roberts sent us a magazine cut showing how Rex King, the well known movie cowboy looked. Now comes this clipping from a Miami paper:

"REX KING GETS SUSPENDED JUDGMENT"

Rex King, Apache Indian who once played football at Carlyle University, appeared before Judge H. P. Williams for disturbing the peace and quiet of the Indian Village above Miami. The Judge lectured to Rex on how his conduct could be improved upon and then passed a 30-day sentence."

We are giving fair warning to everybody that if you see "Rex King" in the paper it ain't us and don't blame it on us. We want everyone to know we are innocent of everything. Rex King in The Crook.

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A bird in the woods is worth two in the Zoo - watch out for fires.

